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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,685	07/20/2006	Yasuaki Norimatsu	520.46387X00	8030

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EXAMINER	
SCHNEIDER, CRAIG M	

ART UNIT	PAPER NUMBER
3753	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,685	NORIMATSU ET AL.	
	Examiner	Art Unit	
	CRAIG SCHNEIDER	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 8-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 8-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/19/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The examiner is resending out the IDS filed 10/19/10. The references were not initialed nor was there a statement that all references were considered, therefore they were not officially reviewed.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5, 13-15, 19, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Shulsinger (4,108,219).

Shulsinger discloses a fuel container comprising a liquid fuel chamber (31) having a space for the storage of liquid fuel; a valve (17) disposed in an outlet of the liquid fuel chamber to discharge the liquid fuel from the space or stop the discharge (col. 3, lines 54-61); a partition wall member (23) movable through the space toward the valve (col. 4, lines 1-3); and a compressed gas chamber (29) communicating with the space and storing compressed gas (col. 4, lines 12-26), the compressed gas imparting a back pressure to the partition wall member so that the partition wall member moves through the space toward the valve, the liquid fuel chamber and the compressed gas chamber being integral with each other as seen in Figure 1, wherein a face of the partition wall member opposing an end face of the space adjacent the outlet is configured to come into contact with the end face of the space adjacent the outlet by the action of back pressure applied by the compression gas so that the fuel in the fuel

container is fully discharged therefrom (col. 5 lines 2-5, fig. 1) (as shown in Figure 1 the flat surface of the partition wall would come into contact with the flat surface adjacent the valve opening). Note: For a fuel cell is intended use and is being treated as such. Since the device is capable of being utilized for a fuel cell then the intended use limitation is met.

Regarding claim 2, wherein the valve is constructed so as to be connectable to a fuel supply port of the fuel cell. The limitation is being treated as intended use and the device as disclosed is capable of being connected to a fuel supply port of the fuel cell.

Regarding claim 3, wherein the compressed gas chamber in the container body is adjacent and juxtaposed to the liquid fuel chamber as seen in Figure 1.

Regarding claim 4, wherein the fuel container is constructed so that it can be loaded into a device incorporating a fuel cell. The limitation is being treated as intended use and the device as disclosed is capable of being loaded into a device incorporating a fuel cell.

Regarding claim 5, wherein the container body is formed in the shape of a cylinder, the liquid fuel chamber is formed in the shape of a cylinder as seen in Figure 1.

Regarding claim 13, Shulsinger teaches a seat (37) that functions as a stopper and prevents contact between the partition wall member (23) and a bottom wall member of the container (15) is formed on the bottom wall member of the cylinder (21) (col. 4 lines 32-35, fig. 1).

Regarding claims 14 and 15, wherein the compressed gas chamber in the container body surrounds the liquid fuel chamber and is arranged on the same axis as seen in Figure 1.

Regarding claims 19 and 22, Shulsinger teaches filling the liquid chamber (col. 5 lines 13-23).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger (4,108,219) in view of Lippman et al. (5,423,454).

Shulsinger discloses all the features of the claimed invention except that the maximum pressure of the compressed gas is 0.3 MPaG (40psi) or lower. Lippman et al. disclose that the common pressure in an aerosol application to be between 10 and 40 psi (col. 5, lines 54-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a pressure below 40 psi (0.3 MPaG) as disclosed by Lippman et al. for the aerosol dispenser of Shulsinger, since this is the common operating pressure for aerosol dispenser as taught by Lippman et al.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger in view of Gupta (2003/0019888).

Shulsinger discloses all the features of the claimed invention except that the compressed gas is an oxygen-free gas. Gupta discloses that the compressed gas can

be one of isobutene, n-butane, propane, dimethyloxide, fluorocarbons, compressed air, nitrogen, and carbon dioxide (page, 7, para. 98).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize one of the oxygen-free gases as disclosed by Gupta in place of the compressed gas of Shulsinger, since the use of the various types of oxygen-free gases are known to be utilized as propellants and therefore are functional equivalents.

7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger in view of JP60-86744 (supplied by applicant).

Shulsinger discloses all the features of the claimed invention except that at least a part of the liquid fuel chamber is formed of a light transmitting material wherein the container body has scales indicating the position of the partition wall member. JP60-86744 discloses a measuring window of a direct transparent view type, wherein the window has a pair of scales (translation).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a scale as disclosed by JP60-86744 with the aerosol dispenser of Shulsinger, in order to be able to see the amount of fuel left in the container.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger in view of Yonetsu et al. (2003/0082421).

Shulsinger discloses all the features of the claimed invention except that the liquid fuel is a mixture of methanol and water. Yonetsu et al. disclose a fuel container containing a mixture of methanol and water (page 1, para. 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a mixture of methanol and water as the fuel as disclosed by Yonetsu et al. for the fuel of Shulsinger, in order to be capable of utilizing the device to supply fuel to a fuel cell.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger in view of Webster et al (3,005,577).

Shulsinger does not teach the details of the valve assembly. Webster teaches the claimed valve features as shown in figure 1, including the valve fitted in the connection port, a spacer (1), a spring supported within the spacer, a gasket disposed over the spacer (11), a valve stem (14), and a flange (12) (fixing member) (fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a valve as disclosed by Webster with the container of Shulsinger, since it would function as a traditional valve and also act as a pressure relief valve (col. 1 lines 51-60).

10. Claims 17, 18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger as applied to claims 1-5, 13-15, 19, and 22 above, and further in view of Hoffman et al. (3,132,570).

Shulsinger discloses all the features of the claimed invention except that the entire surface of the face of the partition is configured to conform against an entire

surface of the end face of the space adjacent the outlet. Hoffman et al. teach a container featuring a piston (partition) face (28) that is contoured to fit snugly over the valve (17) and against the top of the container (10)(Figures 1 and 3, col. 3 lines 15-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a contoured shape as disclosed by Hoffman et al. for the partition wall of Shulsinger that faces the end wall of the space adjacent the outlet, to allow for the maximum amount of product to be dispensed and helps to seal the container as taught by Hoffman et al. (Hoffman col. 3 lines 21-28).

Regarding claims 18 and 21, Shulsinger teaches filling the liquid chamber (col. 5 lines 13-23).

Response to Arguments

11. Applicant's arguments filed 12/20/10 have been fully considered but they are not persuasive.

With response to the argument that Shulsinger does not teach a fuel container for a fuel cell, the application of the container for a fuel cell is considered intended use and does not provide any structural limitations on the claim.

With response to the argument that Shulsinger does not disclose a face of the partition wall member opposing and end face of the space adjacent the outlet is configured to come into contact with the end face of the space adjacent the outlet, Shulsinger teaches this limitation as detailed in the rejection of claim 1 above.

With response to the argument that Shulsinger and Gupta teach away from oxygen free gas, Shulsinger and Gupta do not teach any disadvantages of oxygen free

gas, Gupta teaches several types of oxygen free gas such as isobutene, n-butane, propane, dimethyloxide, fluorocarbons, nitrogen, and carbon dioxide.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRAIG SCHNEIDER whose telephone number is (571)272-3607. The examiner can normally be reached on M-F 8:00 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hepperle can be reached on (571) 272-4913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Craig M Schneider/
Primary Examiner, Art Unit 3753
June 7, 2011